United States Environmental Protection Agency
Washington, DC 20460

Interagency Agreement/ Amendment

Part 1 - General Information

1. EPA IA Identification Number DW-96-95876901 - 0	**2. Funding Location by Region** EPA R2
3. Other Agency IA ID Number (if known)	**4. Awarding Office** IASSC West
5. Type of Action New	**6. IA Specialist:** Aaron Simril 206-553-0459 Simril.Aaron@epa.gov

7. Name and Address of EPA Organization US Environmental Protection Agency IASSC West 1200 Sixth Avenue, Suite 900, OMP-173 Seattle, WA 98101	**8. Name and Address of Other Agency** U.S. Army Corps of Engineers EM CX CEHNC-CX-ES 1616 Capitol Ave., Suite 9200 (CEHNC-CX-ES) Omaha, NE 68102-9200
9. DUNS: 029128894 **10. BETC:** DISB	**11. DUNS:** DOD964126 **12. BETC:** COLL

13. Project Title and Description

Cornell Dubilier Electronics RD OU4

Remedial Design of the OU4 remedy at the Cornell Dubilier Electronics Superfund site, Township of South Plainfield, Middlesex County, New Jersey (EPA ID#: NJD981557879).

14. EPA Project Officer (Name, Address, Telephone Number) Justin Gottesman 290 Broadway (1866) New York, NY 10007-1866 212-637-4303 **E-Mail:** Gottesman.Justin@epa.gov **FAX:**	**15. Other Agency Project Officer (Name, Address, Telephone)** Marvene L. Seaman 1616 Capitol Ave., Suite 9200 (CEHNC-CX-ES) Omaha, NE 68102-9200 402-697-2425 **E-Mail:** Marvene.L.Seaman@usace.army.mil **FAX:** 402-697-2613
16. Project Period: 06/12/2015 to 06/01/2022	**17. Budget Period:** 06/12/2015 to 06/01/2022

18. Scope of Work (See Attachment)

The Scope of Work is attached.

19. Employer/Tax ID No. 520852695	**20. CAGE No:** 347A4	**21. ALC:** 68-01-0727

22. Statutory Authority for Transfer of Funds and Interagency Agreement CERCLA: Secs. 105(a)(4) & 115 and Executive Order 12580	**23. Other Agency Type** Federal Agency

24. Revise Reimbursable Funds and Direct Fund Cites (only complete if applicable)

	Previous Funding	This Action	Amended Total
Revise Reimbursable (in-house)		75,000.00	75,000.00
Direct Fund Cite (contractor)		225,000.00	225,000.00
Total		300,000.00	300,000.00

Funds	Previous Amount	Amount This Action	Total Amount
25. EPA Amount		$300,000.00	$300,000.00
26. EPA In-Kind Amount			$0.00
27. Other Agency Amount		$0.00	$0.00
28. Other Agency In-Kind Amount			$0.00
29. Total Project Cost		$300,000.00	$300,000.00

30. Fiscal Information

Treas. Symbol	DCN	FY	Appropriation	Budget Org	PRC	Object Class	Site/Project	Cost Org	Ob/De-Ob Amt
68-68X8145	1502HE0199	15	TR2	02D	303DD2	2506	02GZRD04	C011	150,000.00
68-68X8145	1502HE0200	15	TR2	02D	303DD2	2506	02GZRD04	C009	150,000.00
									300,000

350393

Part II - Approved Budget				EPA IAG Identification Number DW-96-95876901 - 0
31. Budget Categories	Itemization of All Previous Actions	Itemization of This Action	In-Kind Itemization of This Action	Itemization of Total Project Cost to Date
(a) Personnel		$27,090.00		$27,090.00
(b) Fringe Benefits		$16,254.00		$16,254.00
(c) Travel		$5,000.00		$5,000.00
(d) Equipment				$0.00
(e) Supplies				$0.00
(f) Procurement / Assistance		$225,000.00		$225,000.00
(g) Construction				$0.00
(h) Other				$0.00
(i) Total Direct Charges	$0.00	$273,344.00	$0.00	$273,344.00
(j) Indirect Costs:	$0.00	$26,656.00		$26,656.00
Charged - Amount Rate: 61.5% Base: $43,344.00 Not Charged: Funds-Out: Not charged by Other Agency Estimate by other Agency Amount $				
(k) Total (EPA Share %) (Other Agency Share %)	$0.00	$300,000.00	$0.00	$300,000.00

32. How was the IDC Base calculated? Personnel + Fringe benefits

33. Is equipment authorized to be furnished by EPA or leased, purchased, or rented with EPA funds? ☐ Yes ☒ No
(Identify all equipment costing $1,000 or more) N/A

34. Are any of these funds being used on Procure/Assistance agreements? ☒ Yes ☐ No

Type of Procure/Assistance Agreement Contract

Contractor/Recipient Name (if known)	Total Procure/Assistance Amount Under This Project	Percent Funded by EPA (if known)
TBA	225000.00 **Total $** 225,000.00	100

Part III - Funding Methods and Billing Instructions

35.	(Note: EPA Agency Location Code (ALC) - 68010727)
☒ Disbursement Agreement	Request for repayment of actual costs must be itemized on SF 1080 and submitted to the Financial Management Office, Cincinnati, OH 45268-7002:
☒ Repayment	☒ Monthly ☐ Quarterly ☐ Upon Completion of Work
☐ Advance	Only available for use by Federal agencies on working capital fund or with appropriate justification of need for this type of payment method. Unexpended funds at completion of work will be returned to EPA. Quarterly cost reports will be forwarded to the Financial Management Center, EPA, Cincinnati, OH 45268-7002.
☐ Allocation Transfer-Out	Used to transfer obligational authority or transfer of function between Federal agencies. Must receive prior approval by the Office of Comptroller, Budget Division, Budget Formulation and Control Branch, EPA Hdqtrs. Forward appropriate reports to the Financial Reports and Analysis Branch, Financial Management Division, PM-226F, EPA, Washington, DC 20460.

36. ☐ Reimbursement Agreement ☐ Repayment ☐ Advance
☐ Allocation Transfer-In

Other Agency's Billing Address (include ALC or Station Symbol Number)	Other Agency's Billing Instructions and Frequency
	Other Agency TAS

Part IV - Acceptance Conditions	EPA Identification Number DW-96-95876901 - 0

37. Terms and Conditions, when included, are located at the end of the 1610-1, or as an attachment.

Part V - Offer and Acceptance

Note: A) For Fund-out actions, the agreement/amendment must be signed by the other agency official in duplicate and one original returned to the Grants and IA Management Division for Headquarters agreements or to the appropriate EPA Regional IA administration office within 3 calendar weeks after receipt or within any extension of time that may be granted by EPA. The agreement/amendment must be forwarded to the address cited in item 29 after acceptance signature.

Failure to return the properly executed document within the prescribed time may result in the withdrawal of offer by EPA. Any change to the agreement/amendment by the other agency after the document is signed by the EPA Award Official, which the Award Official determines to materially alter the agreement/amendment, shall void the agreement/amendment.

B) For Funds-In actions, the other agency will initiate the action and forward two original agreements/amendments to the appropriate EPA program office for signature. The agreements/amendments will then be forwarded to the appropriate EPA IA administration office for signature on behalf of the EPA. EPA will return one original copy after acceptance returned to the other agency after acceptance.

EPA IA Administration Office (for administrative assistance)	EPA Program Office (for technical assistance)
38. Organization/Address U.S. Environmental Protection Agency IASSC West 1200 Sixth Avenue, Suite 900, OMP-173 Seattle, WA 98101	**39. Organization/Address** US Environmental Protection Agency R2 - Region 2 290 Broadway New York, NY 10007-1866

Award Official on Behalf of the Environment Protection Agency

40. Digital signature applied by EPA Award Official | FOR Tony Fournier - Acting Manager - Grants and Interagency Agreements Unit Joanne Brendle - AO delegate	Date 06/08/2015

Authorizing Official on Behalf of the Other Agency

41. Signature	Typed Name and Title	Date
Shelly M. Allen for	Scott E. Young, Chief, Environmental Programs Branch	6-18-15

ATTACHMENT A

SCOPE OF WORK FOR REMEDIAL DESIGN

SITE: Cornell Dubilier Electronic Superfund Site – Bound Brook
South Plainfield, Middlesex County, New Jersey

SITE ID: NJD981557879

Purpose

The purpose of this Interagency Agreement (IA) is to obtain technical assistance from the U.S. Army Corps of Engineers (USACE) for design of the Operable Unit 4 (OU4) remedy at the Cornell-Dubilier Electronics (CDE) Superfund site (Site), South Plainfield, Middlesex County, New Jersey.

Background

Cornell-Dubilier Electronics, Inc., operated a facility at 333 Hamilton Boulevard, South Plainfield, New Jersey (former CDE facility), from 1936 to 1962, manufacturing electronic parts and components including capacitors. During site operations, the company released/buried material contaminated with PCBs and chlorinated volatile organic compounds (VOCs), primarily trichloroethylene (TCE), which resulted in contaminating the surrounding site soils. EPA also detected PCBs and VOCs in the groundwater and PCBs on nearby residential, commercial and municipal properties. Further EPA investigations have found PCBs and VOCs in the surface water and sediments of Bound Brook and downstream floodplain soils.

The CDE site was placed on EPA's National Priorities List in July 1998. EPA is the lead agency, and the New Jersey Department of Environmental Protection (NJDEP) is the support agency

To address the impact of the site on the community early in the Superfund process and to effectively manage site complexities, the CDE site was divided into four operable units (OUs). EPA signed a Record of Decision (ROD) in 2003 for Operable Unit One (OU1) that addressed residential, commercial, and municipal properties in the vicinity of the former CDE facility. In 2004, EPA signed a ROD for Operable Unit Two (OU2) that addressed contaminated soils and buildings at the former CDE facility. In 2012, EPA signed a ROD for Operable Unit Three (OU3) addressing contaminated groundwater.

Investigations in the late 1990s found extensive Bound Brook contamination, and PCB contamination on properties near the facility. EPA's investigations found PCB-contaminated soil and interior dust on residential, commercial, and municipal properties in the vicinity of the former CDE facility. These findings led to a series of removal actions on nearby properties, performed by EPA and potentially responsible parties (PRPs), and led EPA to focus OU1 on a

further investigation of nearby properties. In September 2003, EPA selected an OU1 remedy to address PCB-contaminated soils and interior dust at properties in the vicinity of the former CDE facility. The remedy required the excavation, off-site transportation, and disposal of PCB-contaminated soils, and property restoration. The OU1 remedy also called for interior dust cleaning at properties where PCBs were detected indoors. EPA began remediating the first OU1 properties in 2005; remediation work was substantially completed in 2014.

EPA issued an OU2 ROD in 2004. The main components of the OU2 remedy included: demolition of buildings; excavation of an estimated 107,000 cubic yards of the most highly PCB- and VOC-contaminated soil; on-site treatment of excavated soils low temperature thermal desorption (LTTD), followed by backfilling of excavated areas with treated soils; transportation of contaminated soil and debris not suitable for LTTD treatment to an off-site facility for disposal, with treatment as necessary; and, installation of engineering controls including a multi-layer cap or hardscape; and implementation of institutional controls. In 2006, the OU2 remedial action began and completed in September 2012.

Site-related groundwater contamination was initially investigated in 2000. The OU3 RI revealed a complex groundwater flow regime in highly fractured bedrock, with high levels of VOCs and other compounds trapped within the pore spaces of the Passaic Formation (consisting of shale, mudstone and sandstone). The investigation also revealed several high capacity water supply pumping centers that exert significant control over the regional groundwater flow regime, several of which have been intermittently operational since the releases occurred at the former CDE facility. These hydraulic influences led to an extensive, area-wide VOC groundwater plume, and allowed for a wider distribution of contamination to the bedrock pore spaces.

EPA issued the OU3 ROD in September 2012. The remedy selected in the ROD included institutional controls and long-term monitoring of groundwater and vapor intrusion, and incorporated a waiver of groundwater ARARs due to technical impracticability. The OU3 ROD also identified the potential for contaminated groundwater discharge to surface water at levels that would pose an unacceptable risk. Specifically, the OU3 ROD required further assessment of the potential for release of PCBs from the groundwater to surface water, and deferred a decision on contaminated groundwater that had the potential to discharge to the brook to the OU4 remedy.

The final action linked to the CDE site is referred to as Operable Unit Four (OU4). For OU4, EPA performed a 10-mile remedial investigation (RI) of Bound Brook. Bound Brook is a secondary tributary of the Raritan River. The headwaters of Bound Brook originate in areas of Edison Township. Bound Brook flows westerly through the Borough of South Plainfield and into Piscataway Township, where the water is dammed to form New Market Pond, and then flows through Middlesex Borough to the confluence with Green Brook. Green Brook flows to the Raritan River.

The RI results determined that site-related contamination is found within the Bound Brook corridor. OU4 addresses all detected contamination found in the stream channel, adjacent floodplain soils, and tributaries. OU4 also addresses the portion of the contaminated

groundwater that was not addressed by the OU3 remedy (i.e., groundwater that discharges to Bound Brook).

EPA issued a ROD for OU4 in March 2015.

Remedy

The remedy represents the fourth remedial phase for the site (OU4). It addresses the contaminated sediments, floodplain soils and groundwater within the Bound Brook corridor. The components of the selected remedy include:

- excavation of floodplain soils and Bound Brook sediments containing PCBs over 1 milligram per kilogram (mg/kg) with off-site disposal;
- after soil- and sediment removal to 1 mg/kg, monitored natural recovery of Bound Brook sediments to a remediation goal of 0.25 mg/kg PCBs;
- excavation of an area adjacent to the former CDE facility where buried PCB-contaminated capacitors are present, followed by off-site disposal;
- hydraulic containment of groundwater that discharges to Bound Brook, to prevent the release of groundwater contaminants to surface water; and
- re-location of a 36-inch waterline that traverses the former CDE facility to protect the integrity of the facility remedy and future remedies implemented in Bound Brook.

In addition, the 2012 ROD evaluated alternatives for restoration of groundwater to meet Applicable or Relevant and Appropriate Requirements (ARARs) and concluded that no practicable alternatives could be implemented. Consequently, EPA invoked an ARAR waiver for the groundwater at the site due to technical impracticability (TI). However, EPA deferred a TI determination for the small area of the groundwater plume that discharges into Bound Brook. This area was further evaluated as part of this remedy selection process for Bound Brook. As a result, EPA has concluded that the groundwater ARAR waiver should be expanded to include the area of Bound Brook deferred in the 2012 ROD.

The selected remedy will result in hazardous substances, pollutants, or contaminants remaining above levels in sediments, floodplain soils and groundwater that allow for unlimited use and unrestricted exposure. Therefore, a statutory five-year review will be conducted five years after the initiation of the remedial action to ensure the remedy continues to provide adequate protection of human health and the environment.

Scope of Work Activities

Due to the remedy's complexeties, the design will be completed in phases referred to as: Phase I – Capacitor Debris Area; Phase II – Waterline; Phase III – Groundwater; and Phase IV – Bound Brook. Each phase is described as follows:

Phase I – Capacitor Debris Area, Full-depth Excavation and Off-Site Disposal

- Approximately 32,000 cubic yards of Capacitor Debris waste will be excavated and disposed of off-site;

- Backfilling and grading of all excavated areas with clean fill;
- Institutional controls to restrict future land use; and,
- Restoration of all wetlands disturbed during implementation of the remedy.

Phase II – Waterline, Replacement in New Easement

- Construct a similarly sized, new pipeline in the public right-of-way (ROW).
- The new pipeline route is to be determined;
- Modifications to the existing distribution system would be done as necessary to accommodate the changes to the system configuration.

The following elements should be expected to be addressed:

- Negotiations with the Borough of South Plainfield regarding construction of the pipeline in the public ROW.
- Negotiations with the owner of the railroad line (Conrail) regarding a jack and bore under their tracks at two locations.
- Evaluation to establish compliance with regulatory requirements for construction of the pipeline under Bound Brook.
- Modifications to the existing pipeline system to accommodate the proposed changes in the pipeline configuration.
- Abandoning the existing pipeline in place by disconnecting the pipeline from the water distribution system at both ends. The existing pipeline would be grouted closed at both ends.

Phase III – Groundwater, Hydraulic Control (containment)

- Establish Hydraulic control of groundwater along 1,700 foot length of Bound Brook using vertical extraction wells on or nearby the former CDE facility property
    - Technical decisions for the design of the extraction wells should be based primarily on the information developed during the Pre-Design Investigation (PDI);
- Design of an on-site treatment system to treat the extracted groundwater.
- Design of an *ex situ* treatment system which may include oil-water separation, acidification to control scaling, sediment filtration, oxidation to treat organics, catalytic filtration for metals removal, carbon effluent polishing, neutralization, and discharge to a local municipal treatment works or Bound Brook.
  Establish a groundwater monitoring program to monitor the performance of the hydraulic control remedy. Because of the duration of operation, the RD would need to include O&M requirements for the various treatment system components, and to optimize the design based on minimizing O&M costs (*e.g.*, use of solar power).
- Discharge of treated groundwater to surface water in accordance with State NJPDES discharge requirements, if applicable.
- Institutional controls include the establishment of a classification exception area/well restriction area (CEA/WRA). The USACE shall prepare the CEA in accordance with N.J.A.C. 7:26E-6.2(a)17. This document will be submitted to EPA who will in turn submit to NJDEP for review and concurrence.

Phase IV – Bound Brook, Dredging of Sediments and Excavation of Floodplain Soils

- Dredging (either wet or dry conditions to be determined in design) of approximately 34,000 cubic yards of contaminated sediments from the Bound Brook between the former CDE facility and New Market Pond;
- Excavation of 150,000 cubic yards of contaminated floodplain soils located near the former CDE facility, and near the confluence of Bound Brook and Cedar Brook, adjacent to and including portions of Veteran's Memorial Park.
- Cleaning of the existing silt trap (located upstream of the inlet to New Market Pond).
- Off-site disposal of the both the dredged and excavated material;
- Backfilling and grading of all excavated and/or dredged areas with clean fill;
- Institutional controls for the floodplain soils, such as a deed notice or covenant, to prevent exposure to residual sediment contamination that may exceed levels that would allow for unrestricted use;
- On-site restoration of wetlands disturbed during implementation of the remedy; and,
- Transport of soil and sediment off-site for disposal by rail, if feasible.

For all phases of the work, the USACE shall select appropriate personnel and/or contractors to perform the RD for the OU4 remedy. The USACE shall develop a staffing plan for this project, which should be provided to the EPA Remedial Project Manager (RPM) for review.

The USACE shall review relevant background documents to achieve a familiarity with the Site and the scope of the remedial design. These documents include:

1) The OU4 CDE RI/FS reports and the March 2015 OU4 ROD
2) TI Waiver Memorandum for CDE, completed under OU3
3) Any other documents supplied by the RPM that are considered advantageous in the understanding of the contamination of Bound Brook OU4 study area.

At the request of EPA, the USACE shall arrange for performance of a PDI to collect data necessary to complete the RD. Prior to any PDI investigations, USACE shall prepare a Health and Safety Plan and a UFP-QAPP documenting all sample collection, analysis procedures, project management and schedules. The PDI report and data results will form the basis of the RD.

The USACE shall appoint a Project Manager (PM) who will serve as a point-of-contact for the EPA RPM. The PM shall contact the EPA RPM as needed to provide project updates, in addition to the monthly electronic reporting requirement specified in Terms and Conditions of this IA. All design activities shall be coordinated with the EPA RPM.

The USACE shall be responsible for reviewing and commenting on any contractor deliverables. The USACE shall review the remedial design deliverables, including the PDI Report, in coordination with the EPA RPM. The USACE shall not approve and/or accept the final design submittal(s) without EPA concurrence.

The USACE shall attend site meetings at EPA's request and conduct site inspections to ensure that the RD is being conducted in accordance with the approved Site-specific plans and applicable EPA guidance.

If the USACE determines that additional data is necessary to complete the RD, the USACE shall, with the concurrence of the EPA RPM, arrange for the collection of this data.

The USACE shall be responsible for developing the technical statement of work and procuring the services of a private firm who will be responsible for the preparation of a 100% Remedial Design Report.

The USACE must ensure that the RD is conducted in accordance with applicable EPA Directive(s) or guidance on Remedial Design including the OSWER Directive, Guidance for Scoping the RD, OSWER Directive No. 9355.0-43, March 1995 and the RD/RA Handbook, OSWER Directive No. 9355.0-04B, June 1995. Furthermore, the design package must consist of plans and technical specifications along with, at a minimum, a Health and Safety Plan, a Quality Assurance Project Plan (developed in accordance with the Uniform Federal Policy for Quality Assurance Project Plans), and a Sampling, Analysis and Monitoring Plan.

The USACE shall follow the EPA Region 2 Field and Analytical Services Technical Advisory Committee (FASTAC) procedures. For all non-time critical data collection projects, EPA Region 2 requires that a sequential decision tree for procuring Superfund analytical services be followed, which includes:

- Tier 1: EPA Region 2 DESA laboratory (with ESAT support)
- Tier 2: National Analytical Services Contract Laboratories (CLP and Non-RAS)
- Tier 3: Region Specific Analytical Services (SAS) Contract laboratories
- Tier 4: Contractor, IA and Field Contractor Subcontract laboratories

The USACE shall follow the FASTAC strategy unless written direction is provided by the Chief of the New Jersey Remediation Branch to deviate from the FASTAC strategy. This letter shall be submitted to the RSCC along with the analytical services request form.

The USACE shall provide electronic submittal of sampling data and monitoring well installation data, if any, in accordance with EPA Region 2 policies, guidelines, and formats.

OTHER REQUIREMENTS

The EPA RPM shall be notified at least sixty days in advance of reaching 75 and 100 percent expenditure of the total approved IA budget.

The USACE shall submit monthly progress reports in an electronic format to the EPA RPM and Project Officer, which summarize the following: key project milestones achieved; meeting summaries; activities and maintenance performed for the month; accomplishments; project goals, schedules and planned activities for the next three months; an identification of all delays encountered or anticipated that may affect the future schedule for performance of

the RD work, and all efforts made to mitigate delays or anticipated delays. A monthly cost report shall also be included.

The USACE shall use technologies and practices that are sustainable in accordance with EPA Region 2 Clean and Green policy (March 2009) or most current version found at http://epa.gov/region2/superfund/green_remediation/. At the direction of the EPA RPM or EPA Project Officer, the USACE shall incorporate requirements for the appropriate practices into the terms of its contracts consistent with the EPA Region 2 Clean and Green policy. The USACE shall report monthly on the use of these technologies and practices, including the associated quantities of materials reduced, reused, or recycled as a direct result of these practices, for all remedial activities conducted under this IA within its monthly progress report submission.

The USACE shall comply with EPA Directive OSWER 9335.5-24 which states that when it is estimated that the RA cost plus the cost of LTRA for a project will be less than $25,000,000, a VE screen should be conducted; if that VE screen finds that a VE study is warranted, the study should then be conducted. A full VE study should always be conducted for projects (or phases of projects) where the combined life cycle cost is estimated to be $25,000,000 or more.

The USACE shall be responsible for maintaining all technical and financial records associated with this IA.

At the completion of this IA, the USACE shall perform all necessary closeout activities as specified in the IA. The closeout activities may include closing out any contracts, indexing and consolidating project records and files as required above, and providing a technical and financial closeout report to EPA.

PROJECT ORGANIZATION

The EPA RPM for this project is:

Mark Austin
U.S. Environmental Protection Agency – Region II
290 Broadway – 19th Floor
New York, NY 10007-1866
(212) 637-3954